

1 CLAIMS

2 I claim:

1 1. A device for enhancing removal of liquid from fabric, which comprises:
2 a base plate having one or more apertures to serve as extraction nozzles, wherein
3 the total cross-sectional area of the apertures is selected to be that which will increase the
4 extraction power for the vacuum motor with which said base plate is to be utilized.

1 2. The device for enhancing removal of liquid from fabric as recited in claim 1,
2 wherein:
3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 3. The device for enhancing removal of liquid from fabric as recited in claim 1,
2 wherein:
3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.

1 4. The device for enhancing removal of liquid from fabric as recited in claim 3,
2 wherein:
3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 5. A device for enhancing removal of liquid from fabric, which comprises:
2 a base plate having one or more apertures to serve as extraction nozzles, wherein
3 the number and shape of the apertures is selected to reduce the ratio of the total distance
4 along all the perimeters of said apertures to the total cross-sectional area of said apertures.

1 6. The device for enhancing removal of liquid from fabric as recited in claim 5,
2 wherein:

3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 7. A device for enhancing removal of liquid from fabric, which comprises:
2 a base plate having one or more apertures to serve as extraction nozzles; and
3 one or more barriers attached to the bottom of said base plate to force any liquid
4 in the fabric toward said apertures as said base plate is moved across the fabric.

1 8. The device for enhancing removal of liquid from fabric as recited in claim 7,
2 wherein:

3 said barriers are so constructed that only a small surface area of said barrier
4 contacts the fabric generally perpendicularly to the original orientation of such fabric.

1 9. The device for enhancing removal of liquid from fabric as recited in claim 7,
2 wherein:

3 the total cross-sectional area of the apertures is selected to be that which will
4 increase the extraction power for the vacuum motor with which said base plate is to be
5 utilized.

1 10. The device for enhancing removal of liquid from fabric as recited in claim 9,
2 wherein:

3 said barriers are so constructed that only a small surface area of said barrier
4 contacts the fabric generally perpendicularly to the original orientation of such fabric.

1 11. The device for enhancing removal of liquid from fabric as recited in claim 9,
2 wherein:

3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.

1 18. The device for enhancing removal of liquid from fabric as recited in claim 17,
2 wherein:

3 said barriers are so constructed that only a small surface area of said barrier
4 contacts the fabric generally perpendicularly to the original orientation of such fabric.

1 19. The device for enhancing removal of liquid from fabric as recited in claim 17,
2 wherein:

3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 20. The device for enhancing removal of liquid from fabric as recited in claim 19,
2 wherein:

3 said barriers are so constructed that only a small surface area of said barrier
4 contacts the fabric generally perpendicularly to the original orientation of such fabric.

1 21. A device for enhancing removal of liquid from fabric, which comprises:
2 a base plate having one or more apertures to serve as extraction nozzles; and
3 a means for forcing any liquid in the fabric toward said apertures as said base
4 plate is moved across the fabric, said means for forcing being attached to the bottom of
5 said base plate.

1 22. The device for enhancing removal of liquid from fabric as recited in claim 21,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 23. The device for enhancing removal of liquid from fabric as recited in claim 21,
2 wherein:

3 the total cross-sectional area of the apertures is selected to be that which will
4 increase the extraction power for the vacuum motor with which said base plate is to be
5 utilized.

- 1 24. The device for enhancing removal of liquid from fabric as recited in claim 23,
2 wherein:
3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.
- 1 25. The device for enhancing removal of liquid from fabric as recited in claim 23,
2 wherein:
3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.
- 1 26. The device for enhancing removal of liquid from fabric as recited in claim 25,
2 wherein:
3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.
- 1 27. The device for enhancing removal of liquid from fabric as recited in claim 25,
2 wherein:
3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.
- 1 28. The device for enhancing removal of liquid from fabric as recited in claim 27,
2 wherein:
3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.
- 1 29. The device for enhancing removal of liquid from fabric as recited in claim 23,
2 wherein:
3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 30. The device for enhancing removal of liquid from fabric as recited in claim 29,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 31. The device for enhancing removal of liquid from fabric as recited in claim 21,
2 wherein:

3 the number and shape of the apertures is selected to reduce the ratio of the total
4 distance along all the perimeters of said apertures to the total cross-sectional area of said
5 apertures.

1 32. The device for enhancing removal of liquid from fabric as recited in claim 31,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 33. The device for enhancing removal of liquid from fabric as recited in claim 31,
2 wherein:

3 the cross-sectional area of each of said apertures is selected to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through said
5 apertures without clogging said apertures.

1 34. The device for enhancing removal of liquid from fabric as recited in claim 33,
2 wherein:

3 said means for forcing includes a means for increasing the penetration of said base
4 plate into the fabric.

1 35. A process for enhancing removal of liquid from fabric, which comprises:

2 applying a vacuum force to a base plate having one or more apertures to serve as
3 extraction nozzles; and

4 forcing any liquid in the fabric toward one or more of the apertures in the base
5 plate as a result of the movement of the base plate across the fabric.

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1 36. The process for enhancing removal of liquid from fabric as recited in claim 35,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 37. The process for enhancing removal of liquid from fabric as recited in claim 35,
2 further comprising:

3 selecting the total cross-sectional area of the apertures to be that which will
4 increase the extraction power for the vacuum motor with which the base plate is to be
5 utilized.

1 38. The process for enhancing removal of liquid from fabric as recited in claim 37,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 39. The process for enhancing removal of liquid from fabric as recited in claim 37,
2 further comprising:

3 selecting the number and shape of the apertures to reduce the ratio of the total
4 distance along all the perimeters of the apertures to the total cross-sectional area of the
5 apertures.

1 40. The process for enhancing removal of liquid from fabric as recited in claim 39,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 41. The process for enhancing removal of liquid from fabric as recited in claim 39,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 42. The process for enhancing removal of liquid from fabric as recited in claim 41,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 43. The process for enhancing removal of liquid from fabric as recited in claim 37,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 44. The process for enhancing removal of liquid from fabric as recited in claim 43,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 45. The process for enhancing removal of liquid from fabric as recited in claim 35,
2 further comprising:

3 selecting the number and shape of the apertures to reduce the ratio of the total
4 distance along all the perimeters of the apertures to the total cross-sectional area of the
5 apertures.

1 46. The process for enhancing removal of liquid from fabric as recited in claim 45,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 47. The process for enhancing removal of liquid from fabric as recited in claim 45,
2 further comprising:

3 selecting the cross-sectional area of each of the apertures to be large enough to
4 permit solid contaminants that can be expected to be in the liquid to pass through the
5 apertures without clogging the apertures.

1 48. The process for enhancing removal of liquid from fabric as recited in claim 47,
2 further comprising:

3 increasing the penetration of the base plate into the fabric.

1 49. A process for enhancing removal of liquid from fabric, which comprises:

2 applying a vacuum force to a base plate having one or more apertures to serve as
3 extraction nozzles; and

4 selecting the total cross-sectional area of the apertures to be that which will
5 increase the extraction power for the vacuum motor with which the base plate is utilized.

50. The process for enhancing removal of liquid from fabric as recited in claim 49, further comprising:

selecting the cross-sectional area of each of the apertures to be large enough to permit solid contaminants that can be expected to be in the liquid to pass through the apertures without clogging the apertures.

51. The process for enhancing removal of liquid from fabric as recited in claim 49, further comprising:

selecting the number and shape of the apertures to reduce the ratio of the total distance along all the perimeters of the apertures to the total cross-sectional area of the apertures.

52. The process for enhancing removal of liquid from fabric as recited in claim 51, further comprising:

selecting the cross-sectional area of each of the apertures to be large enough to permit solid contaminants that can be expected to be in the liquid to pass through the apertures without clogging the apertures.

53. A process for enhancing removal of liquid from fabric, which comprises:

applying a vacuum force to a base plate having one or more apertures to serve as extraction nozzles; and

selecting the number and shape of the apertures to reduce the ratio of the total distance along all the perimeters of the apertures to the total cross-sectional area of the apertures.

54. The process for enhancing removal of liquid from fabric as recited in claim 53, further comprising:

selecting the cross-sectional area of each of the apertures to be large enough to permit solid contaminants that can be expected to be in the liquid to pass through the apertures without clogging the apertures.

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